

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P228616

Luminaire Tested: **ISS-AF-450-LED-E1-SLR-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228616
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29764)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-450-LED-E1-SLR-8030
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-90° SPILL LIGHT ELIMINATOR RIGHT
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2039 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

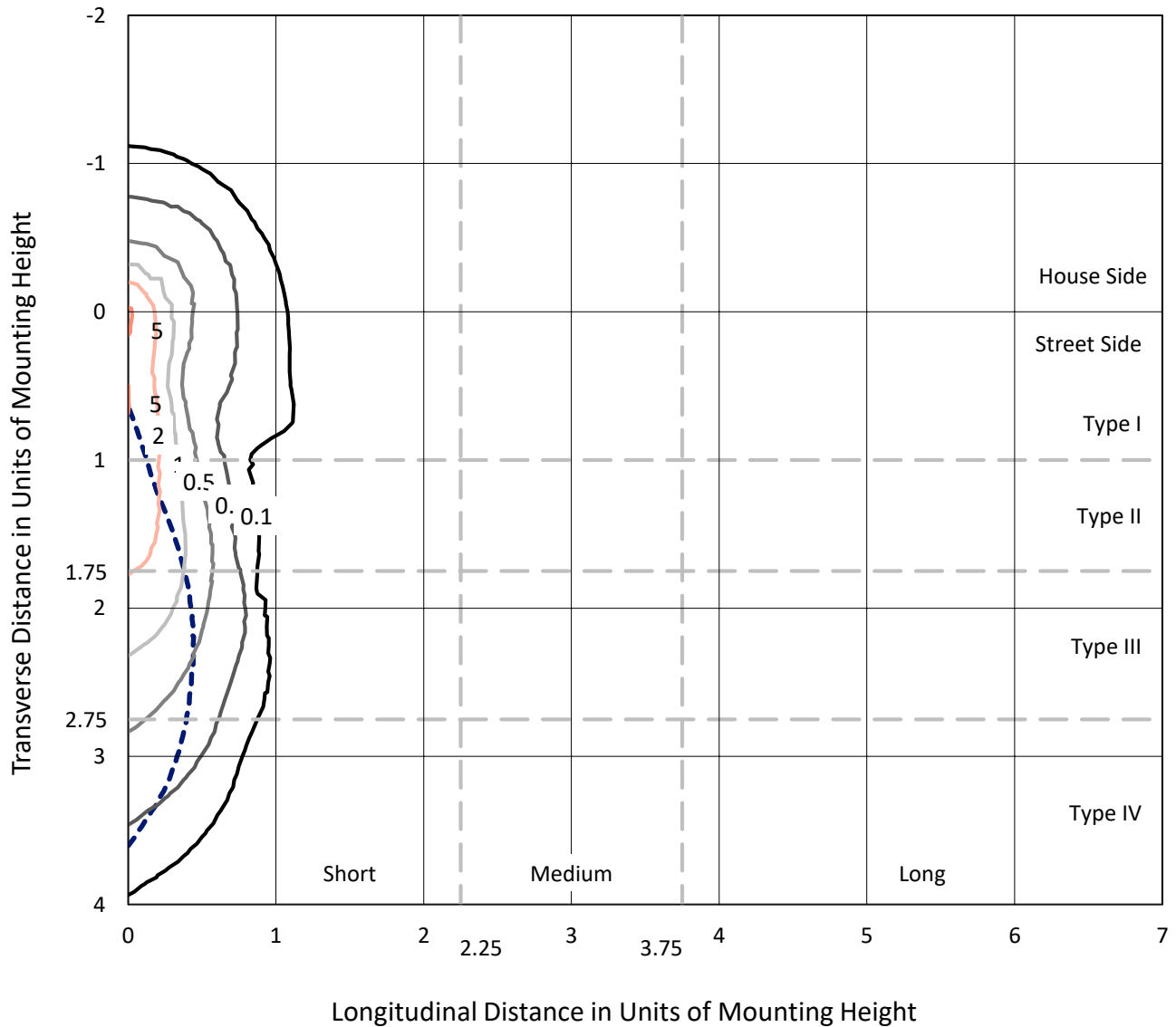
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P228616
 CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

Iso-Footcandle Lines of Horizontal Illumination

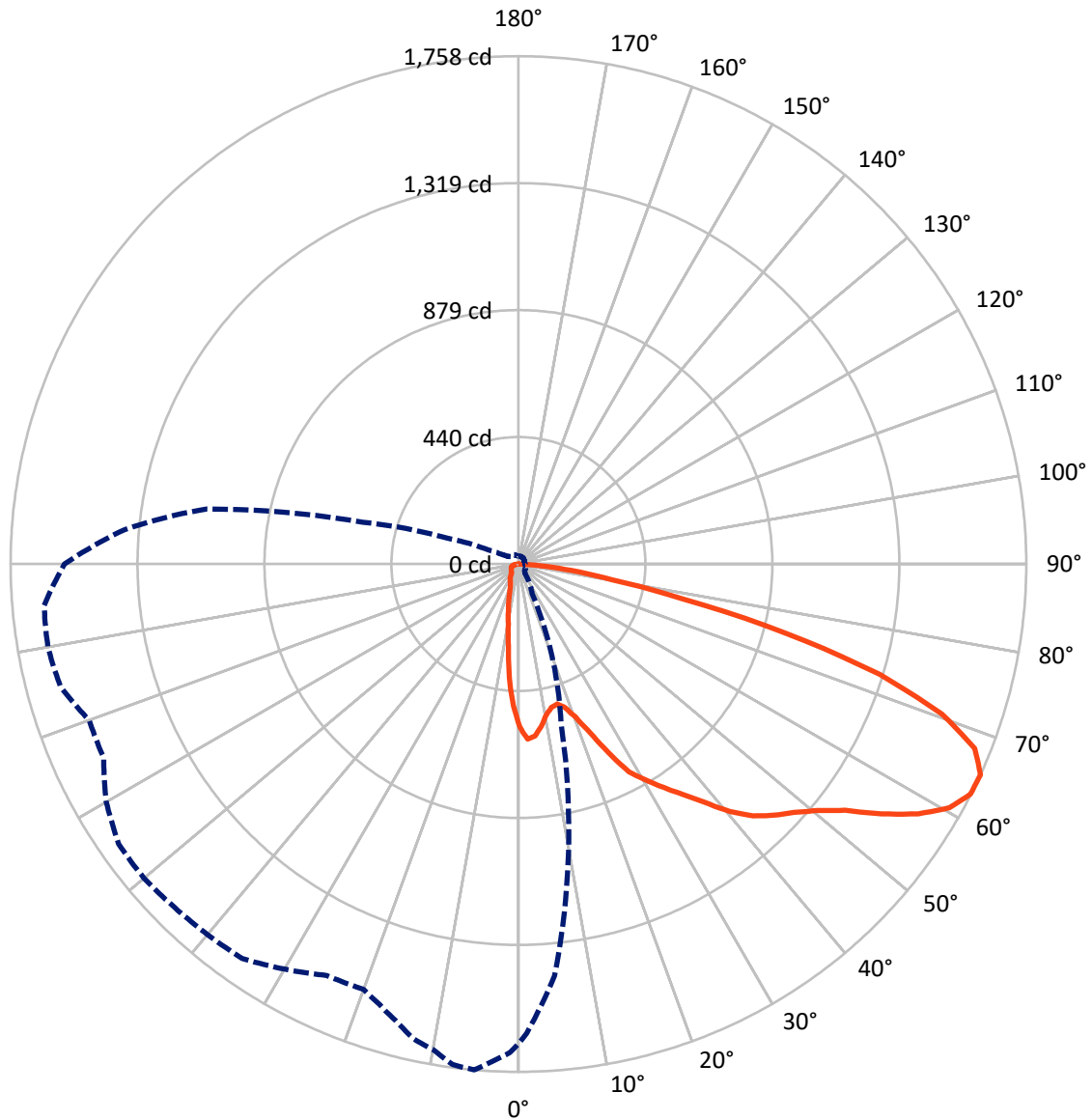
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P228616
CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P228616

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	339.0	0.0	339.0
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	1700.0	0.0	1700.0
	% Fixture	83.4	0.0	83.4
Total	Lumens	2039.0	0.0	2039.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	2.1
10°-20°	89.3	4.4
20°-30°	129.8	6.4
30°-40°	192.0	9.4
40°-50°	279.7	13.7
50°-60°	419.3	20.6
60°-70°	522.4	25.6
70°-80°	306.0	15.0
80°-90°	57.2	2.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2039.0	100.0
0°-180°	2039.0	100.0



REPORT NUMBER: P228616

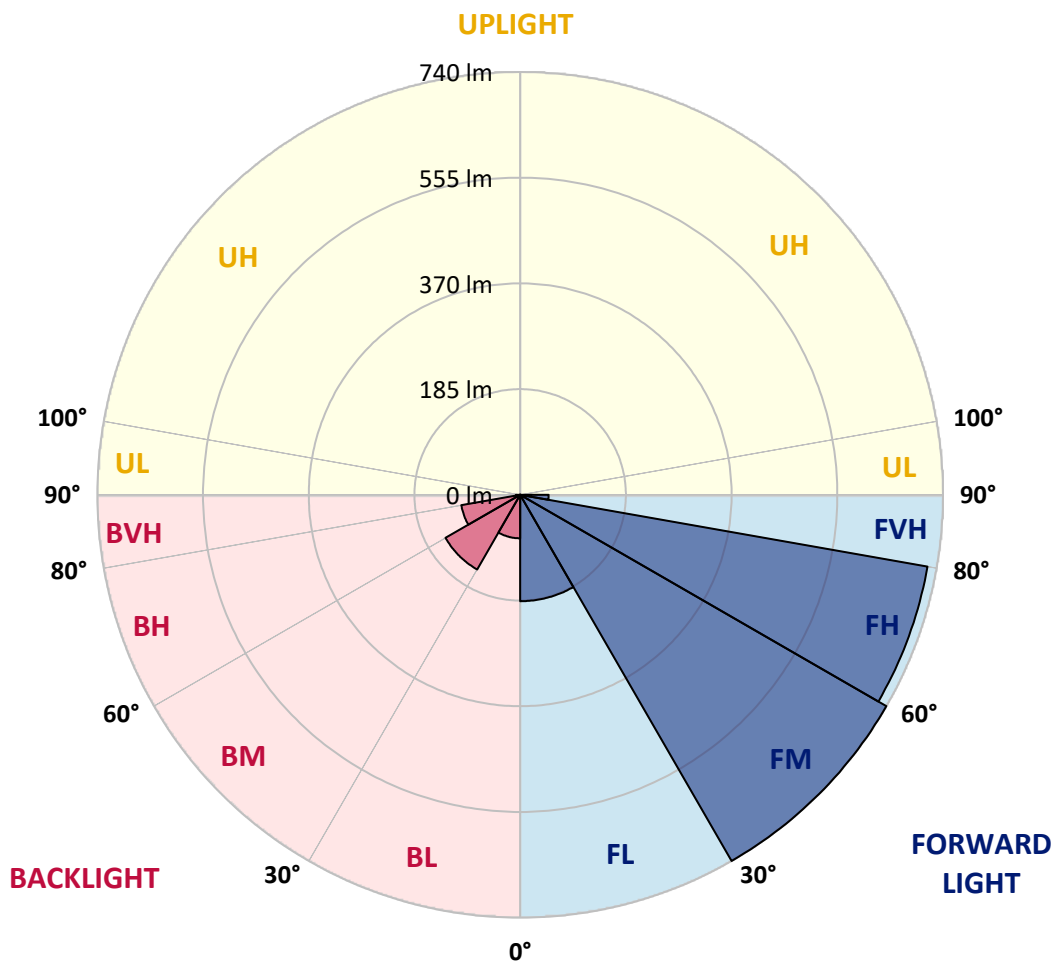
CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	186.3	9.1			
FM	(30°-60°)	740.0	36.3			
FH	(60°-80°)	723.8	35.5			G1/1800
FVH	(80°-90°)	49.9	2.4			G1/100
BL	(0°-30°)	76.1	3.7	B0/110		
BM	(30°-60°)	150.9	7.4	B0/220		
BH	(60°-80°)	104.6	5.1	B0/110		G0/110
BVH	(80°-90°)	7.4	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





REPORT NUMBER: P228616

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	599.0	594.1	584.5	565.1	544.9	525.5	522.3	515.0	515.8	511.8	510.2
5°	579.6	573.2	553.0	512.6	477.9	442.4	440.0	425.4	427.0	418.2	413.3
7.5°	536.8	527.9	505.3	449.6	401.2	354.4	349.5	332.6	330.2	321.3	314.0
10°	494.8	486.0	457.7	393.9	338.2	303.5	297.9	289.8	283.3	279.3	272.0
12.5°	468.2	463.4	429.5	356.0	312.4	284.2	276.9	268.8	262.4	255.1	247.8
15°	462.6	452.9	418.2	343.9	293.0	258.3	249.4	240.6	233.3	226.0	215.5
17.5°	477.9	468.2	429.5	338.2	271.2	229.3	218.0	205.9	198.6	189.7	178.4
20°	514.2	498.9	451.3	330.2	247.8	195.4	181.6	167.1	159.0	143.7	135.6
22.5°	572.3	553.0	488.4	330.2	226.0	159.8	144.5	131.6	122.7	109.0	100.1
25°	655.5	638.5	548.9	339.0	206.7	130.0	114.6	101.7	92.8	83.1	77.5
27.5°	733.0	706.3	613.5	352.0	191.3	109.0	93.6	83.1	76.7	71.8	68.6
30°	791.1	769.3	670.0	360.8	168.7	91.2	81.5	75.1	71.8	69.4	67.8
32.5°	844.4	819.4	710.4	366.5	155.0	77.5	68.6	63.8	60.5	57.3	56.5
35°	900.9	876.7	758.0	365.7	146.1	71.0	62.2	56.5	53.3	52.5	50.9
37.5°	979.2	946.1	812.9	365.7	142.9	68.6	58.1	52.5	50.0	48.4	47.6
40°	1055.1	1017.9	873.5	368.1	139.7	67.0	58.1	52.5	48.4	46.8	45.2
42.5°	1126.1	1085.0	928.3	372.1	138.0	62.2	54.9	51.7	50.0	46.8	44.4
45°	1180.2	1147.9	971.1	380.2	138.0	58.9	51.7	49.2	48.4	48.4	47.6
47.5°	1232.7	1196.4	1020.4	395.6	140.5	56.5	49.2	46.0	46.0	46.0	46.8
50°	1300.5	1257.7	1088.2	427.0	140.5	55.7	46.8	43.6	42.8	44.4	44.4
52.5°	1392.5	1361.8	1187.5	472.2	138.8	54.9	46.0	41.2	40.4	41.2	42.8
55°	1522.5	1487.8	1307.8	527.9	137.2	53.3	44.4	40.4	38.7	37.9	38.7
57.5°	1634.7	1604.8	1418.3	572.3	133.2	49.2	42.8	39.6	37.1	36.3	35.5
60°	1683.9	1658.9	1489.4	602.2	125.9	45.2	40.4	37.9	35.5	34.7	33.9
62.5°	1692.0	1660.5	1490.2	608.7	117.9	41.2	37.9	35.5	33.9	33.1	32.3
65°	1660.5	1625.0	1431.3	569.1	111.4	41.2	36.3	33.9	31.5	30.7	29.9
67.5°	1589.5	1534.6	1281.9	482.7	105.8	42.0	35.5	31.5	29.9	29.1	28.3
70°	1418.3	1357.0	1082.5	383.4	103.3	42.8	35.5	29.9	27.4	26.6	26.6
72.5°	1136.6	1066.4	844.4	289.0	99.3	43.6	34.7	28.3	25.8	24.2	24.2
75°	769.3	708.0	572.3	195.4	82.3	37.9	31.5	25.8	22.6	21.0	20.2
77.5°	428.7	408.5	364.1	103.3	52.5	28.3	24.2	21.0	18.6	17.8	17.0
80°	251.9	241.4	214.7	57.3	32.3	16.1	14.5	13.7	12.1	12.1	12.1
82.5°	154.2	143.7	133.2	25.8	15.3	8.1	8.1	6.5	6.5	5.7	5.7
85°	42.0	38.7	54.1	5.7	1.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P228616

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

CANDELA DISTRIBUTION (continued):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	503.7	502.1	502.1	490.0	490.0	483.5	481.9	481.9	484.4	482.7	473.1
5°	405.2	400.4	397.2	382.6	378.6	371.3	368.1	367.3	369.7	365.7	352.8
7.5°	305.1	301.1	296.3	285.0	280.1	279.3	269.6	267.2	265.6	262.4	254.3
10°	266.4	260.7	256.7	248.6	243.0	238.9	230.9	226.8	223.6	218.8	216.3
12.5°	239.8	234.1	228.5	218.0	210.7	205.9	201.0	192.9	189.7	184.1	180.8
15°	206.7	200.2	193.7	182.4	172.8	167.9	158.2	153.4	150.1	143.7	140.5
17.5°	166.3	157.4	150.1	139.7	134.8	126.7	121.1	113.0	106.6	104.1	101.7
20°	125.1	117.1	110.6	101.7	96.9	90.4	87.2	81.5	78.3	76.7	75.1
22.5°	92.0	85.6	81.5	76.7	74.3	71.8	70.2	68.6	67.0	66.2	66.2
25°	72.7	70.2	68.6	67.0	66.2	65.4	63.8	63.0	62.2	61.4	61.4
27.5°	66.2	64.6	63.8	63.0	62.2	60.5	60.5	58.9	58.1	58.1	57.3
30°	67.0	67.0	67.0	65.4	64.6	63.0	62.2	59.7	58.1	56.5	55.7
32.5°	54.9	54.9	54.1	52.5	51.7	50.9	50.9	49.2	48.4	48.4	50.0
35°	50.0	49.2	48.4	46.8	46.0	44.4	43.6	42.8	42.0	41.2	41.2
37.5°	47.6	46.8	46.0	44.4	43.6	42.8	42.0	40.4	39.6	39.6	38.7
40°	45.2	45.2	45.2	43.6	42.8	41.2	40.4	39.6	38.7	37.9	37.9
42.5°	43.6	43.6	43.6	42.8	42.0	41.2	39.6	38.7	37.9	37.1	36.3
45°	44.4	43.6	43.6	42.8	42.0	40.4	39.6	37.9	37.1	36.3	35.5
47.5°	47.6	46.8	45.2	43.6	42.0	40.4	38.7	37.1	36.3	35.5	34.7
50°	45.2	48.4	49.2	46.8	42.8	40.4	38.7	37.1	35.5	34.7	33.9
52.5°	44.4	45.2	48.4	48.4	44.4	41.2	38.7	37.1	35.5	33.9	33.1
55°	40.4	42.8	43.6	44.4	43.6	40.4	37.9	35.5	34.7	33.1	31.5
57.5°	35.5	37.1	37.9	39.6	40.4	39.6	36.3	33.9	33.1	31.5	29.9
60°	33.1	33.1	33.1	33.9	37.9	41.2	37.9	33.1	30.7	29.9	28.3
62.5°	30.7	30.7	29.9	30.7	31.5	35.5	34.7	31.5	29.9	29.1	27.4
65°	29.9	29.1	28.3	28.3	28.3	28.3	28.3	28.3	27.4	27.4	26.6
67.5°	27.4	26.6	26.6	25.8	25.8	25.8	25.8	25.8	25.0	25.0	24.2
70°	25.8	25.0	24.2	24.2	24.2	23.4	23.4	23.4	22.6	22.6	22.6
72.5°	23.4	22.6	22.6	22.6	21.8	21.8	21.8	21.0	21.0	20.2	20.2
75°	20.2	20.2	19.4	19.4	19.4	18.6	18.6	18.6	18.6	17.8	17.8
77.5°	17.0	16.1	17.0	16.1	16.1	16.1	16.1	16.1	15.3	15.3	14.5
80°	11.3	11.3	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	11.3
82.5°	6.5	5.7	6.5	6.5	6.5	7.3	7.3	8.1	7.3	7.3	6.5
85°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P228616

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	477.9	477.1	469.0	470.6	468.2	463.4	464.2	465.0	466.6	463.4	461.8
5°	359.2	360.0	349.5	352.8	350.3	349.5	352.0	356.0	358.4	357.6	355.2
7.5°	255.1	255.9	247.0	246.2	243.8	243.0	246.2	250.2	252.7	251.9	252.7
10°	210.7	208.3	200.2	194.5	188.9	184.1	183.2	183.2	183.2	181.6	180.0
12.5°	174.4	171.9	162.3	157.4	152.6	146.1	145.3	144.5	142.1	139.7	136.4
15°	135.6	133.2	125.1	121.9	117.9	115.4	114.6	114.6	113.0	111.4	109.8
17.5°	98.5	96.9	92.0	88.8	88.0	88.8	89.6	91.2	92.0	92.8	92.8
20°	74.3	73.5	71.8	71.8	72.7	75.1	75.9	78.3	79.1	80.7	82.3
22.5°	65.4	65.4	64.6	64.6	66.2	68.6	70.2	71.0	71.8	72.7	72.7
25°	60.5	60.5	59.7	61.4	63.8	63.8	63.8	63.8	62.2	61.4	61.4
27.5°	57.3	57.3	57.3	58.1	57.3	56.5	56.5	56.5	55.7	55.7	54.9
30°	54.9	54.9	54.9	54.1	54.1	53.3	53.3	52.5	52.5	51.7	51.7
32.5°	50.9	49.2	50.9	49.2	49.2	48.4	49.2	49.2	47.6	47.6	47.6
35°	40.4	39.6	39.6	39.6	38.7	39.6	41.2	41.2	41.2	41.2	41.2
37.5°	37.9	37.9	37.1	36.3	36.3	35.5	36.3	35.5	35.5	35.5	36.3
40°	37.1	36.3	35.5	35.5	34.7	33.9	33.9	33.9	33.9	33.9	33.9
42.5°	35.5	35.5	33.9	33.1	33.1	32.3	32.3	32.3	32.3	32.3	32.3
45°	34.7	33.9	33.1	32.3	31.5	31.5	31.5	31.5	31.5	31.5	30.7
47.5°	33.9	33.1	32.3	31.5	30.7	29.9	29.9	29.9	29.9	29.9	29.9
50°	33.1	32.3	30.7	30.7	29.9	29.1	29.1	29.1	29.1	29.1	29.1
52.5°	31.5	31.5	29.9	29.1	28.3	28.3	28.3	28.3	28.3	28.3	28.3
55°	29.9	29.9	28.3	27.4	26.6	26.6	26.6	26.6	27.4	27.4	27.4
57.5°	29.1	28.3	26.6	26.6	25.0	25.0	25.0	25.8	25.8	26.6	26.6
60°	27.4	26.6	25.8	25.0	25.0	24.2	24.2	24.2	24.2	25.0	25.0
62.5°	26.6	25.8	24.2	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
65°	25.0	25.0	23.4	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6
67.5°	23.4	23.4	21.8	21.0	21.0	21.0	21.8	21.0	21.0	21.0	21.0
70°	21.8	21.0	20.2	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
72.5°	19.4	19.4	18.6	17.8	17.8	17.8	17.8	17.8	17.8	17.8	18.6
75°	17.0	16.1	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
77.5°	14.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.7
80°	10.5	9.7	9.7	9.7	9.7	10.5	10.5	10.5	10.5	10.5	10.5
82.5°	6.5	5.7	5.7	5.7	6.5	7.3	7.3	7.3	7.3	8.1	8.1
85°	1.6	1.6	1.6	1.6	3.2	4.0	4.0	4.0	4.8	4.0	4.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P228616

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

CANDELA DISTRIBUTION (continued):

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	460.1	469.8	469.8	463.4	466.6	463.4	462.6	468.2	471.4	481.9	488.4
5°	356.0	368.1	368.9	365.7	369.7	367.3	369.7	377.0	382.6	389.9	396.4
7.5°	254.3	265.6	268.0	265.6	272.9	272.0	273.7	281.7	286.6	290.6	291.4
10°	179.2	180.8	187.3	185.7	190.5	189.7	192.1	198.6	205.0	207.5	209.1
12.5°	134.8	133.2	135.6	132.4	134.8	134.8	135.6	139.7	147.7	151.0	159.0
15°	109.0	107.4	107.4	105.8	105.8	104.9	105.8	109.0	114.6	119.5	125.9
17.5°	92.8	92.8	92.8	92.0	91.2	91.2	92.0	93.6	96.9	100.1	103.3
20°	83.1	84.8	85.6	86.4	87.2	88.0	88.8	91.2	90.4	87.2	83.1
22.5°	72.7	72.7	73.5	73.5	72.7	72.7	72.7	72.7	72.7	75.1	77.5
25°	60.5	60.5	60.5	61.4	60.5	60.5	61.4	61.4	62.2	63.8	66.2
27.5°	54.9	54.9	54.9	54.9	54.9	54.9	54.9	55.7	56.5	58.9	60.5
30°	50.9	50.9	50.0	50.0	50.0	49.2	50.0	50.0	50.9	54.1	56.5
32.5°	46.8	46.0	46.0	46.0	45.2	45.2	45.2	46.8	47.6	49.2	51.7
35°	41.2	41.2	41.2	42.0	42.0	42.0	42.0	43.6	43.6	44.4	44.4
37.5°	37.1	37.1	37.9	38.7	38.7	39.6	39.6	40.4	41.2	40.4	39.6
40°	33.9	34.7	34.7	36.3	36.3	36.3	37.1	37.9	38.7	37.1	37.1
42.5°	32.3	32.3	32.3	33.1	33.1	33.1	33.9	34.7	35.5	35.5	35.5
45°	30.7	30.7	30.7	31.5	30.7	30.7	30.7	31.5	33.1	33.1	33.9
47.5°	29.9	29.9	29.9	29.1	29.1	29.1	29.1	29.9	30.7	32.3	33.1
50°	29.1	28.3	28.3	28.3	28.3	28.3	28.3	29.1	29.9	30.7	32.3
52.5°	27.4	27.4	27.4	27.4	27.4	27.4	27.4	28.3	29.1	29.9	30.7
55°	27.4	27.4	26.6	26.6	27.4	27.4	27.4	28.3	29.1	29.9	29.9
57.5°	26.6	25.8	25.8	26.6	26.6	26.6	26.6	27.4	28.3	29.1	29.1
60°	25.0	25.0	25.0	25.0	25.8	25.8	26.6	27.4	27.4	28.3	28.3
62.5°	23.4	24.2	24.2	24.2	25.0	25.0	25.8	26.6	27.4	28.3	27.4
65°	22.6	23.4	23.4	23.4	24.2	24.2	24.2	25.8	26.6	26.6	27.4
67.5°	21.8	21.8	21.8	22.6	22.6	23.4	23.4	25.0	25.0	25.8	26.6
70°	20.2	20.2	20.2	21.0	21.0	21.8	22.6	23.4	23.4	24.2	25.0
72.5°	18.6	18.6	18.6	19.4	19.4	20.2	21.0	22.6	21.8	22.6	22.6
75°	16.1	16.1	17.0	17.0	17.8	18.6	19.4	19.4	19.4	19.4	19.4
77.5°	13.7	13.7	14.5	14.5	15.3	16.1	16.1	16.1	17.0	16.1	16.1
80°	11.3	11.3	12.1	12.1	12.1	12.1	12.9	12.1	12.9	12.1	12.9
82.5°	8.1	8.1	8.9	8.1	8.9	8.1	8.1	7.3	8.9	8.1	8.1
85°	3.2	4.0	4.0	4.0	4.0	3.2	3.2	2.4	3.2	3.2	2.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P228616

CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

CANDELA DISTRIBUTION (continued):

	175°	180°	185°	195°	205°	215°	225°	230°	235°	240°	245°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	490.8	490.0	502.1	511.0	516.6	538.4	548.1	560.2	565.9	574.0	582.0
5°	397.2	395.6	410.1	421.4	431.1	462.6	481.1	498.1	511.8	524.7	543.3
7.5°	284.2	280.9	290.6	300.3	313.2	347.1	379.4	402.0	422.2	444.0	468.2
10°	209.9	212.3	222.0	236.5	253.5	279.3	305.1	321.3	339.0	363.3	392.3
12.5°	167.9	177.6	185.7	203.4	223.6	252.7	280.1	293.0	305.9	318.1	333.4
15°	134.8	140.5	146.9	163.9	188.1	222.0	254.3	268.8	284.2	298.7	312.4
17.5°	104.1	106.6	109.8	121.9	143.7	184.1	219.6	238.1	255.9	276.1	294.6
20°	83.1	83.1	84.0	89.6	104.9	136.4	180.0	203.4	226.0	251.9	278.5
22.5°	72.7	71.8	72.7	75.1	82.3	100.9	140.5	167.9	197.0	229.3	262.4
25°	68.6	67.8	67.0	68.6	72.7	81.5	109.8	138.8	168.7	207.5	247.8
27.5°	62.2	63.0	63.8	65.4	68.6	73.5	91.2	113.0	146.1	188.9	237.3
30°	58.1	58.9	59.7	61.4	67.0	72.7	83.1	96.9	125.1	167.1	221.2
32.5°	53.3	54.1	54.9	55.7	57.3	63.8	71.0	82.3	106.6	147.7	204.2
35°	43.6	43.6	44.4	46.8	50.0	56.5	63.8	72.7	95.3	134.8	193.7
37.5°	40.4	40.4	41.2	43.6	46.8	52.5	58.9	67.0	90.4	130.0	184.1
40°	37.9	38.7	38.7	41.2	44.4	50.9	54.9	64.6	88.0	122.7	174.4
42.5°	36.3	36.3	37.1	39.6	43.6	48.4	54.1	63.0	81.5	116.2	168.7
45°	34.7	35.5	35.5	37.9	42.8	46.8	54.9	59.7	77.5	111.4	163.9
47.5°	33.9	33.9	34.7	37.1	42.0	47.6	53.3	56.5	73.5	107.4	159.8
50°	32.3	33.1	33.9	36.3	41.2	52.5	50.9	54.1	70.2	104.1	157.4
52.5°	31.5	32.3	33.1	35.5	41.2	53.3	49.2	50.9	67.8	100.9	155.8
55°	30.7	30.7	31.5	34.7	41.2	49.2	46.0	49.2	63.0	96.1	151.8
57.5°	29.1	29.9	30.7	33.1	40.4	45.2	43.6	46.8	58.1	88.0	146.1
60°	29.1	29.1	29.9	32.3	40.4	40.4	41.2	44.4	52.5	78.3	136.4
62.5°	28.3	28.3	29.1	32.3	41.2	36.3	38.7	42.0	48.4	70.2	124.3
65°	27.4	27.4	28.3	30.7	35.5	34.7	37.1	39.6	46.8	64.6	113.8
67.5°	25.8	25.8	26.6	29.1	31.5	32.3	35.5	37.9	46.0	63.8	104.1
70°	24.2	24.2	24.2	26.6	28.3	30.7	33.1	36.3	46.0	63.0	96.9
72.5°	22.6	21.8	22.6	24.2	25.8	27.4	29.9	33.9	45.2	63.8	93.6
75°	19.4	19.4	19.4	21.0	22.6	24.2	26.6	31.5	42.8	59.7	84.0
77.5°	16.1	16.1	15.3	17.8	19.4	20.2	22.6	27.4	37.1	50.9	67.8
80°	12.1	11.3	11.3	13.7	14.5	16.1	17.8	21.0	29.1	37.1	50.0
82.5°	7.3	6.5	6.5	8.9	9.7	10.5	13.7	15.3	19.4	24.2	33.9
85°	2.4	2.4	2.4	4.0	4.8	5.7	8.1	8.9	12.1	15.3	17.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.4	4.0	4.8	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P228616
 CATALOG NUMBER: ISS-AF-450-LED-E1-SLR-8030

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	250°	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	0°
2.5°	591.7	599.8	610.3	620.0	627.2	633.7	641.8	641.8	651.5	654.7	661.1	2.5°
5°	557.8	573.2	595.8	614.3	636.9	658.7	678.9	690.2	709.6	722.5	735.4	5°
7.5°	489.2	510.2	538.4	564.3	597.4	632.9	666.0	696.7	729.0	756.4	776.6	7.5°
10°	417.4	446.4	476.3	509.4	544.9	582.8	623.2	664.4	703.1	741.9	775.0	10°
12.5°	358.4	391.5	425.4	466.6	507.8	548.1	595.8	631.3	671.6	710.4	742.7	12.5°
15°	333.4	362.5	402.0	447.2	490.8	532.0	576.4	612.7	650.6	682.1	704.7	15°
17.5°	322.9	360.0	405.2	452.9	499.7	549.7	589.3	620.0	648.2	662.8	666.0	17.5°
20°	311.6	362.5	423.0	481.1	538.4	590.9	620.0	640.2	645.0	644.2	632.1	20°
22.5°	305.1	370.5	445.6	527.1	599.0	660.3	680.5	676.5	656.3	630.5	610.3	22.5°
25°	303.5	389.1	484.4	592.5	680.5	741.9	753.2	730.6	685.4	635.3	601.4	25°
27.5°	305.1	410.1	532.8	662.8	766.1	829.1	825.0	791.1	726.5	656.3	602.2	27.5°
30°	297.9	431.9	581.2	724.1	826.6	879.1	863.0	812.1	740.3	670.0	612.7	30°
32.5°	285.8	448.0	624.0	773.4	889.6	929.2	900.1	845.2	770.9	699.1	640.2	32.5°
35°	272.0	455.3	654.7	819.4	957.4	978.4	931.6	875.9	808.1	735.4	671.6	35°
37.5°	257.5	456.1	683.7	867.8	1022.8	1031.7	963.9	904.1	837.9	772.5	714.4	37.5°
40°	249.4	452.9	713.6	927.5	1093.0	1080.9	997.8	927.5	862.1	812.1	764.5	40°
42.5°	246.2	447.2	735.4	972.7	1153.6	1126.9	1029.3	950.9	892.0	850.0	816.9	42.5°
45°	246.2	441.6	755.6	1006.6	1198.8	1164.1	1059.1	973.6	921.1	895.2	879.1	45°
47.5°	247.0	444.0	779.8	1061.5	1237.5	1199.6	1082.5	1006.6	961.4	951.8	957.4	47.5°
50°	251.1	471.4	821.0	1122.1	1286.0	1237.5	1114.0	1043.8	1016.3	1026.0	1058.3	50°
52.5°	257.5	515.0	892.0	1193.9	1361.0	1298.1	1166.5	1097.1	1084.1	1118.9	1180.2	52.5°
55°	264.0	559.4	984.9	1314.2	1482.1	1407.9	1259.3	1189.9	1174.6	1227.8	1315.8	55°
57.5°	269.6	592.5	1075.3	1433.7	1587.1	1530.6	1382.0	1298.1	1291.6	1348.9	1445.0	57.5°
60°	275.3	618.4	1127.7	1487.0	1634.7	1629.0	1508.8	1431.3	1421.6	1474.9	1566.1	60°
62.5°	272.0	608.7	1142.3	1460.3	1630.7	1677.5	1612.1	1557.2	1524.1	1568.5	1657.3	62.5°
65°	259.9	557.8	1096.3	1368.3	1571.7	1648.4	1654.1	1641.2	1581.4	1584.6	1647.6	65°
67.5°	226.8	469.0	955.0	1223.0	1456.3	1547.5	1642.8	1638.7	1562.8	1495.8	1508.8	67.5°
70°	188.1	368.1	779.0	1041.4	1292.4	1370.7	1522.5	1553.2	1445.0	1319.9	1260.9	70°
72.5°	158.2	275.3	599.0	806.4	1035.7	1126.9	1352.2	1394.9	1247.2	1071.2	980.0	72.5°
75°	131.6	194.5	421.4	555.4	714.4	834.7	1180.2	1184.2	1012.3	842.8	744.3	75°
77.5°	97.7	132.4	305.1	388.3	490.8	594.1	954.2	964.7	803.2	639.3	554.6	77.5°
80°	65.4	81.5	194.5	271.2	330.2	398.0	699.9	655.5	530.4	443.2	421.4	80°
82.5°	39.6	47.6	112.2	189.7	208.3	247.8	440.0	410.9	349.5	319.7	327.7	82.5°
85°	21.8	29.9	68.6	124.3	96.9	135.6	240.6	234.9	220.4	192.9	167.9	85°
87.5°	5.7	6.5	15.3	5.7	2.4	7.3	46.8	30.7	30.7	17.8	6.5	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°

NUMBER: P228616
 NUMBER: ISS-AF-450-LED-E1-SLR-8030

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):											CANDELA DISTRIBUTION	
305°	310°	315°	325°	335°	340°	342.5°	345°	347.5°	350°	352.5°		355°
564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	0°	564.3
655.5	657.9	657.1	651.5	636.9	631.3	628.9	622.4	615.1	615.1	608.7	2.5°	607.1
734.6	738.6	733.8	720.1	682.9	665.2	654.7	641.8	631.3	621.6	611.9	5°	598.2
790.3	793.5	785.5	754.0	687.8	657.9	641.8	626.4	613.5	596.6	581.2	7.5°	567.5
800.8	808.1	799.2	754.0	677.3	640.2	622.4	605.4	586.9	569.1	547.3	10°	530.4
770.9	786.3	779.8	746.7	672.4	632.9	611.9	591.7	569.1	550.5	525.5	12.5°	509.4
724.9	726.5	730.6	729.8	663.6	624.8	603.8	582.8	562.7	544.9	523.1	15°	502.9
674.1	672.4	677.3	692.6	661.1	630.5	616.7	596.6	582.0	561.9	544.9	17.5°	522.3
628.0	625.6	630.5	645.8	651.5	644.2	638.5	626.4	615.1	602.2	588.5	20°	566.7
599.0	590.9	590.1	612.7	656.3	675.7	679.7	678.1	677.3	667.6	657.9	22.5°	632.9
582.8	574.0	578.0	603.8	676.5	712.8	731.4	737.8	746.7	746.7	746.7	25°	722.5
578.0	568.3	574.0	603.0	697.5	758.0	784.7	800.8	817.8	825.0	829.9	27.5°	814.5
581.2	571.5	574.0	608.7	708.0	768.5	800.0	823.4	850.0	867.8	879.9	30°	867.8
599.8	582.8	581.2	625.6	727.3	791.9	825.0	851.7	881.5	901.7	923.5	32.5°	921.9
624.8	600.6	597.4	653.1	752.4	821.8	854.9	878.3	909.0	936.4	967.9	35°	979.2
666.8	636.9	632.1	699.1	786.3	846.8	879.9	910.6	943.7	979.2	1019.6	37.5°	1046.2
723.3	693.4	693.4	758.0	832.3	881.5	917.8	950.1	986.5	1034.1	1083.3	40°	1126.1
787.1	767.7	770.9	829.1	884.8	925.1	959.8	994.5	1032.5	1080.1	1137.4	42.5°	1192.3
871.8	861.3	877.5	918.7	938.0	965.5	996.2	1026.8	1068.0	1117.2	1182.6	45°	1240.8
971.1	980.0	1002.6	1015.5	992.1	1006.6	1030.9	1059.1	1107.6	1157.6	1222.2	47.5°	1285.2
1095.4	1118.9	1140.7	1137.4	1059.1	1054.3	1076.9	1098.7	1147.1	1204.4	1273.0	50°	1340.9
1238.3	1269.0	1284.3	1266.6	1134.2	1105.9	1124.5	1154.4	1207.7	1273.0	1349.7	52.5°	1415.9
1383.6	1420.8	1415.9	1395.7	1215.7	1177.8	1189.1	1224.6	1290.0	1364.3	1461.1	55°	1526.5
1515.2	1544.3	1557.2	1513.6	1315.0	1265.0	1277.9	1315.0	1384.4	1467.6	1566.9	57.5°	1631.5
1619.4	1650.8	1650.8	1608.1	1423.2	1365.1	1386.9	1423.2	1482.9	1565.3	1658.1	60°	1713.8
1695.2	1720.3	1711.4	1670.2	1516.0	1471.6	1488.6	1538.6	1592.7	1654.1	1727.5	62.5°	1755.8
1689.6	1692.0	1682.3	1667.0	1571.7	1566.9	1599.2	1637.9	1683.1	1706.5	1747.7	65°	1758.2
1530.6	1531.4	1550.7	1544.3	1529.7	1589.5	1631.5	1663.8	1703.3	1703.3	1698.5	67.5°	1703.3
1254.5	1267.4	1300.5	1290.8	1365.1	1487.8	1536.2	1585.5	1620.2	1620.2	1579.0	70°	1555.6
955.0	963.1	1002.6	993.7	1094.6	1229.5	1336.0	1418.3	1452.3	1473.2	1420.8	72.5°	1306.9
695.0	694.2	711.2	698.3	825.8	976.0	1085.8	1188.3	1244.0	1261.7	1166.5	75°	958.2
535.2	520.7	517.5	519.1	585.3	709.6	796.8	862.1	869.4	871.8	743.5	77.5°	580.4
431.9	431.9	427.0	409.3	358.4	414.9	459.3	511.0	529.6	556.2	445.6	80°	326.9
344.7	331.0	306.8	272.0	230.1	245.4	266.4	285.8	317.3	328.6	271.2	82.5°	185.7
171.9	167.1	146.1	121.1	100.9	134.0	149.3	151.0	151.0	139.7	113.8	85°	75.9
0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.5°	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°	0.0

'228616
ISS-AF-450-LED-E1-SLR-8030

TION (continued):

359°	360°
564.3	564.3
597.4	599.0
584.5	579.6
544.1	536.8
500.5	494.8
475.5	468.2
470.6	462.6
487.6	477.9
525.5	514.2
586.1	572.3
669.2	655.5
750.7	733.0
808.9	791.1
865.4	844.4
921.9	900.9
997.8	979.2
1081.7	1055.1
1151.1	1126.1
1206.0	1180.2
1258.5	1232.7
1318.2	1300.5
1407.9	1392.5
1544.3	1522.5
1644.4	1634.7
1696.0	1683.9
1712.2	1692.0
1691.2	1660.5
1625.0	1589.5
1465.2	1418.3
1168.1	1136.6
787.9	769.3
452.9	428.7
259.9	251.9
146.1	154.2
37.9	42.0
0.0	0.0
0.0	0.0

(END OF REPORT)